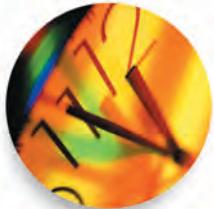


# Stratus Avance™ High-Availability and Virtualization Software for x86 Servers



**Total Availability**



**Operational Simplicity**



**Financial Advantage**

Stratus Avance software reinvents high availability (HA) and virtualization, removing the barriers that once stood in the way of wide-scale business implementation. The high cost and complexity traditionally associated with these advanced technologies are gone. In their place, the Avance solution delivers automatic uptime that exceeds 99.99% with integrated virtualization that is simple to deploy and manage.

Small to medium businesses will immediately benefit from an HA foundation that protects their IT operations from the effects of downtime and data loss. Larger enterprises can now resolve the return on investment challenges of maintaining IT infrastructure in distributed or remote environments. And, any business can profit from the bottom line advantages inherent to virtualization — fewer servers, lower energy costs, elimination of planned downtime — without the added expense of specialized hardware, storage area networks or highly trained technical teams. Like all Stratus availability solutions, Avance software simply works.

## Total availability

Stratus Avance software is central to our focus on addressing the “total” availability needs of customers. Backed by 28 years of proven leadership, the Avance solution leverages everything Stratus has learned about hardware and software availability — and then takes it one step further. To significantly increase the availability levels of applications running on standard x86 servers.

Avance HA is instant and automatic. Unlike other high-availability solutions on the market today, there’s no need for failover scripting, repeated test procedures, or extra effort to make applications cluster-aware. And, with Avance software, restarts are nearly eliminated.

Seamless, automated resource sharing between the Avance nodes ensures that applications continue to run, even during fault-handling and live migration.

Stratus Avance technology detects errors and continues processing during all but the most catastrophic hardware and software faults. To users, greater than 99.99% uptime routinely means no application interruptions, data loss or client disconnects.

## Operational simplicity

Operational simplicity is engineered into every Stratus product and service. Our Avance software is no exception. In fact, all it takes to set up an Avance solution is a pair of x86 servers, a private Ethernet link and less than 15 minutes of your time. Key in one command and Avance automatically builds an HA environment for you. Built-in 24/7 monitoring and error detection, isolation and reporting work concurrently to prevent application downtime. Avance fault handling procedures and administrative functions are also highly automated. This reduces the risk of downtime caused by human error and simplifies ongoing management and maintenance of your application environment.

Embedded virtualization enables you to set up virtual machines in minutes. Just load the Windows® and Linux® guest operating systems and the Avance Virtualization Wizard will do the rest. Your physical x86 servers, virtual machines and network interfaces can all be managed from a single web-based management console that runs within the Avance HA environment.

## Financial advantage

Stratus Avance software brings instant high availability and built-in virtualization together in a single low-cost solution. The ongoing financial advantages are better still. Set up and management are simple and there is nothing else to buy. As a result, you’ll save on equipment and staffing, as well as the time and effort needed to set up and maintain clusters or other HA alternatives.



**Stratus® Avance™**  
High Availability and  
Virtualization Software



# Automatic high availability. Built-in virtualization. Operational simplicity.

Key Features	
<b>ENTERPRISE-CLASS HIGH AVAILABILITY</b>	
• Automated application availability	Avance software automatically handles critical subsystem failures — without the intervention of highly skilled operators typically required by other solutions. Full resource sharing between duplex components e.g. disks etc. enables applications to run during fault-handling and live migration procedures.
• Predictive failure handling	Predictive failure indicates the primary server may fail, or is running at degraded performance. If this occurs, Avance software automatically uses unaffected resources on the other node.
• Live migration	When an actual fault occurs, all VMs automatically migrate to the unaffected node — without suspending operations — to make the faulty node available for servicing.
<b>EMBEDDED VIRTUALIZATION</b>	
• Instant HA virtual machines	Once you create virtual machines, Avance does the rest, automatically managing them for assured high availability. No special knowledge of clustering or other high-availability approaches is required.
• Multiple Guest OSs	Both Windows and Linux virtual machines can run on a single Avance system.
<b>EFFORTLESS INSTALLATION AND USE</b>	
• The Avance web console	Authorized users can remotely monitor and manage the host operating system, virtual machines, physical systems and interfaces from this single web-based management console.
• Built-in fault management	Avance includes a preconfigured fault-management system that can also forward SNMP trap events to an IT manager.
• No SAN required	Avance provides high availability virtualization without SANs — eliminating the time, effort and cost to set up, manage and audit a storage area network.
• Simple installation	Avance installation takes less than 15 minutes and requires no special skills.
• Mixed server environments	Your Avance nodes do not have to be identical, providing flexibility when upgrading physical memory and disk.
<b>ENTERPRISE-READY PERFORMANCE AND SCALABILITY</b>	
• “Bare metal” implementation	Avance runs directly on the hardware, not on top of a separate host operating system — allowing it to deliver the highest levels of performance and scalability.
• Hardware virtualization assist	The latest processor implementations are utilized for excellent performance, even when you run operating systems that are not delivered virtualization-ready.
• Multiprocessor VMs	Support for up to 8 virtual CPUs per VM allows you to take advantage of today's multi-core processors and to deploy the most processor-intensive applications including messaging and database servers.
• 32GB RAM per VM	Server-class virtual memory capacity supports the most memory-intensive workloads.

Operating Systems	System Requirements
<b>MICROSOFT® WINDOWS</b>	
Windows Server® 2003 Web Edition	
Windows Server 2003 Standard Edition	
Windows Server 2003 Enterprise Edition	
Windows Server 2003 Datacenter Edition	
Windows Small Business Server 2003	
<b>LINUX</b>	
Red Hat® Enterprise Linux® (RHEL)	
<b>X86 STANDARD SERVER</b>	
Sockets	1-4
Processors	Intel® Xeon® processor Intel VT required
Memory	1GB - 128GB
Drives	2 minimum; local boot disk, 32GB and larger
Network	2-6 ports (1 port must be 1 G/s or more)

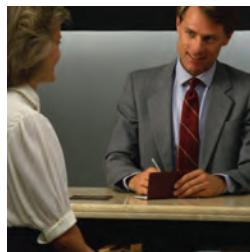
Specifications and descriptions are summary in nature and subject to change without notice.

Stratus and the Stratus logo are registered trademarks and Avance, the Avance logo and the Stratus Technologies logo are trademarks of Stratus Technologies Bermuda Ltd. Microsoft, Windows, Windows Server, and the Windows logo are either trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries. Intel, the Intel Inside logo and Xeon are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries. The registered trademark Linux is used pursuant to a sublicense from the Linux Mark Institute, the exclusive licensee of Linus Torvalds, owner of the mark on a worldwide basis. Red Hat, Enterprise Linux, and the Red Hat Shadowman logo are registered trademarks of Red Hat, Inc. in the United States and other countries. Citrix, XenServer and the Citrix logo are trademarks or registered trademarks of Citrix.

# Stratus® Avance™ Software

High Availability. Virtualization.  
Operational Simplicity.

*Experience a new level of business continuity.*



# High availability and virtualization — made simply better.



## Experience a new level of business continuity without the high costs

Improved business continuity and consolidation are now easily within the reach of every IT budget. Stratus Avance software is a single easy-to-use solution, that reinvents high availability from the ground up. Its fundamental technology components—high availability, virtualization and operational simplicity—also deliver a

lasting benefit you won't get from other HA solutions. Lower IT costs.

Ideal for small/medium businesses and remote environments, this new enterprise-class solution from Stratus extends your availability options across the entire business spectrum.

## Transform x86 servers into a high-availability and virtualization platform

Avance software fuses the benefits of high-availability and virtualization into a single integrated solution. In fact, setting up a resilient Windows® or Linux® application environment has never been easier or more economical. The software's predictive features identify, isolate and report faults while full resource sharing enables the system to use unaffected components if a hardware or software error is imminent. Built-in and preconfigured for immediate activation, Avance virtualization fully leverages Avance HA to ensure the same level of protection for virtual machines and applications.

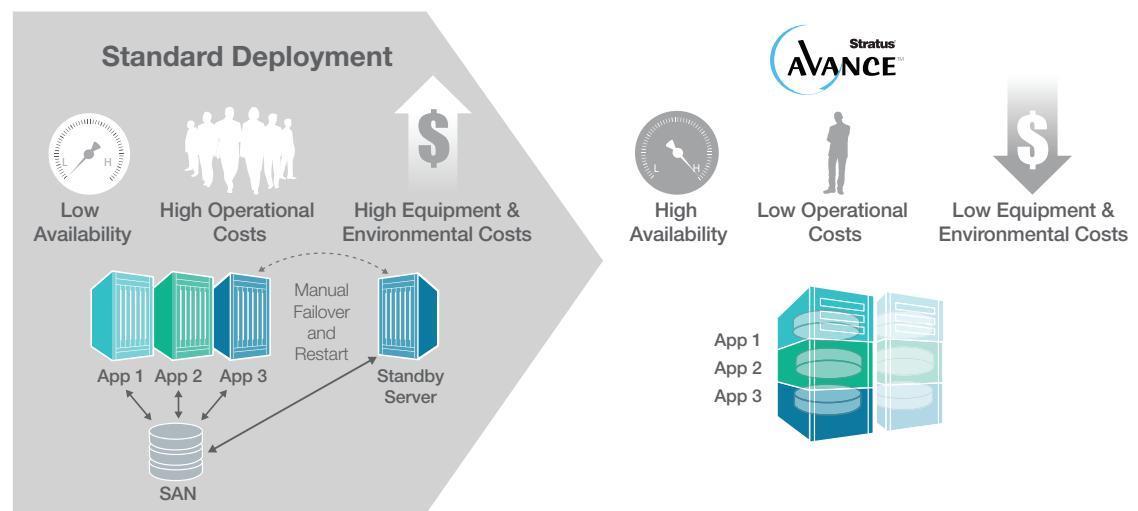
With a single click, Avance software installs an HA environment that immediately protects your business from the high costs of downtime, data loss and reduced productivity. The very costs that multiply the fastest in virtualized IT environments.

### Instant, affordable uptime >99.99% and effortless virtualization

- Get automatic >99.99% high availability and built-in virtualization for standard x86 servers
- Prevent downtime and data loss with automated 24/7 monitoring, error detection, isolation and fault-management features
- Ensure 24/7 access to critical business solutions from a single management console
- Support multiple Windows and Linux virtual machines (VMs) with integrated Avance virtualization
- Provide risk-free virtualization and server consolidation on a platform-independent foundation of high availability
- Reduce the cost and complexity of traditional and virtualized IT environments with a solution that is easy to install, use and maintain
- Benefit from a next-generation IT solution that's ideal for small to medium businesses and distributed or remote locations with limited on-site support

## Avance software strengthens business continuity — and your bottom line.

Avance technology lowers the cost and complexity traditionally associated with high availability and virtualization.



# A single, easy-to-use, easy-to-manage software solution.



Stratus® servers have already earned the trust of global business. Now our Avance High-Availability software makes industry-leading availability, virtualization, operational simplicity and the financial advantages they bring more accessible than ever. This highly affordable software enables you to replace disparate stand-alone servers with a single solution that is easy to deploy and manage.

## Instant availability

If you can set up an industry-standard server, you can install Avance High Availability. Your organization benefits from >99.99% uptime and data protection as soon as you load the Avance software onto a pair of x86 servers — no clusters to configure and test, no failover scripts to write, no changes to your software applications. Your applications immediately run in a hardened HA environment.

## Integrated virtualization

Built-in virtualization lets your business benefit from the advantages of this technology any time you are ready. Consolidate multiple applications on a single Avance solution with confidence. The software's tightly integrated combination of high availability and virtualization brings you near-native virtual machine performance in a resilient environment.

## Fast virtual machine provisioning

The Avance Virtualization Wizard makes provisioning highly available virtual machines easy. Resources for new virtual machines are automatically replicated without user intervention, and without requiring

any special knowledge of virtualization or high-availability architectures.

## Affordable to own

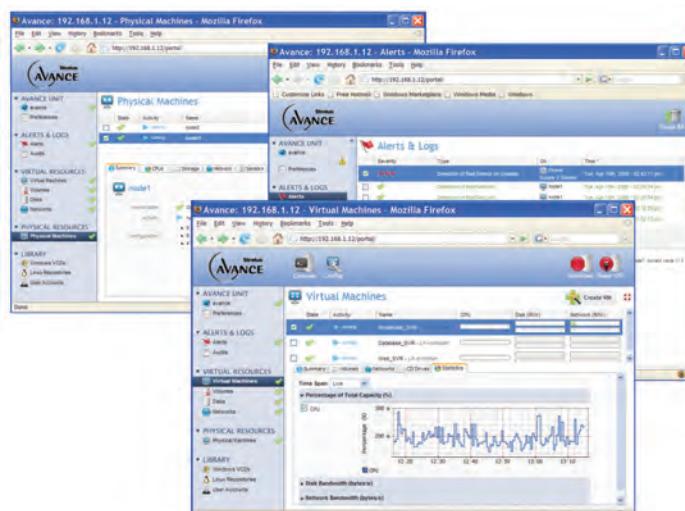
Avance High Availability provides a hardened, virtualized server environment without the added expense of specialized hardware and expressly trained technical teams. Not only does Avance software run on industry-standard platforms, but also the two server nodes of an Avance system need not be exactly the same. You won't face constraints imposed by high-availability software that requires identical servers down to the firmware revisions. And unlike a cluster, a storage area network (SAN) is not required. A pair of servers with embedded storage is the only hardware you need. You'll save significantly on equipment and staff costs, not to mention the time and effort it takes to set up and maintain a SAN.

## Single management interface

Avance High Availability presents a streamlined single-system image. Authorized IT professionals can remotely monitor and manage the virtual machines, the physical x86 systems and network interfaces. All of this makes Avance software ideal for use in distributed locations without technical professionals on site.

In addition, the management portal itself runs in the Avance High Availability environment. Essential management and provisioning capabilities don't rely on a lone server that could easily be a single point of failure.

## Web-based interface enables remote monitoring and management



*Avance software features a single, web-based management console that enables remote monitoring and management of the virtual machines, physical x86 systems and network interfaces.*

*It's just one of the many technology advances that make Avance software ideal for remote or distributed locations without on-site technical staff.*

# The next-generation IT solution. For every business.



The simpler a solution is to manage, the better: Human error is the number one cause of IT downtime. Not to mention there aren't enough hours in the day for your staff to accomplish everything that's asked of them.

Avance High Availability and Virtualization software is highly automated — minimizing your exposure to operational errors, while freeing up valuable time.

## Automatic and predictive

Avance High Availability provides instant protection. Data and state are automatically mirrored on your secondary physical server. The software immediately begins monitoring the operation of your physical servers and their virtual machines to predict events and handle faults — without intervention by a skilled operator. Applications ride through most causes of system interruption, including disk and network subsystem failure. As a result, you avoid the processing blackout, data loss and user disconnects that happen during a conventional cluster failover.

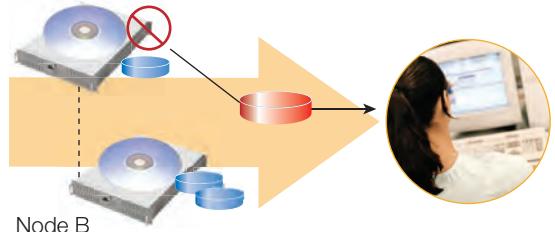
## Automated fault management

Avance software automates fault detection and error handling and continually monitors the heartbeat of virtual machines. Upon sensing a problem in one server, the software migrates applications to the unaffected server. The problem is isolated to the component level for rapid repair. Software and

hardware faults and other events are automatically reported via e-mail and custom reports to your IT staff and/or another authorized service provider.

## Complete online management

Node A



Node B

*Even if a server node is completely down, Avance software diagnoses and isolates the issue and calls for repair.*

## Live upgrades

Avance High Availability also helps eliminate planned downtime for hardware and software upgrades. Use the management portal to transfer production to the other member of your server pair, and your virtual machines won't miss a beat. When you're ready to bring the upgraded system back online, Avance software automatically resynchronizes the application(s) and disk mirroring.

## Automatic High Availability. Effortless Virtualization. The Agility to Go Anywhere.



Avance software makes high availability and virtualization affordable for every business environment.

### Business-critical application

#### Distribution/Remote



Avance Software

- Highest availability
- Online upgrades
- Split site

### Consolidation

#### Print Server Data base Appl.



Avance Software

- Hardware reduction
- Appliance-like, simple
- Out-of-the-box availability
- Agility: new application deployment
- Full remote management
- Low-cost solution

### Hosting

#### Appl. group 1 Appl. group 2 Appl. group N



Avance Software

- Hardware reduction
- Selectable SLAs
- Agility: business provisioning
- Scalability
- Resource monitoring/alarming, re-provisioning
- Split site

Specifications are summary and subject to change. Stratus and the Stratus logo are registered trademarks and Avance, the Avance logo and the Stratus Technologies logo are trademarks of Stratus Technologies Bermuda Ltd. Citrix and XenServer are either registered trademarks or trademarks of Citrix Systems, Inc. in the United States and/or other countries. Windows is a trademark or registered trademark of Microsoft Corporation in the United States and/or other countries. The registered trademark Linux is used pursuant to a sublicense from the Linux Mark Institute, the exclusive licensee of Linus Torvalds, owner of the mark on a worldwide basis.